CODE & PIXELS

Values, People, Experience & Technology

13TH ANNIVERSARY 2012 - 2025

Leader in IETM Technology

S1000D: Defined, Explained, and Explored

WE MEASURE OUR SUCCESS BY OUR CLIENT SUCCESS

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S1000D: Defined, Explained, and Explored

What is S1000D?

S1000D is the European standard of technical publications or technical documentation being followed in Aerospace since 1980, which uses CSDB, a Common source database which is used for preparing, managing, and publishing technical information for a warship, or Aerospace, or even Civil airlines too.

The first release of the S1000D Specification was in 1989 and in August 2019 the latest 5 Issue was release

An airplane or ship is built with thousands of components, sub-components and navigation equipment, and many more. Hence, these components are supplied by many OEMs (Original equipment manufacturers). OEMs make the documents to their own standards. Each document and format is entirely different because all OEMs don't maintain similar standards. At that point, the Technical Publications Specification Maintenance Group (TPSMG) was formed. They proposed a DM-based (Data Module) Based structure. TO manage these Data modules CSDB was maintained. (Database). Data Module is the standalone section of the document. For example, let's assume that one data module is prepared on Operation of GPS and stored in CSDB, then whenever GPS operations

are to be reproduced for different aircraft or different systems, simply that Data module can be copied and plugged.

In short, re-usability and the format used is XML, and tags are defined by the S1000D steering committee.

S1000D Basic Principle

- Content or data produced following the standard is in Data Module
- This data module is the smallest and self-contained content or data unit within a technical publication
- A data module must have sense and meaning when viewed without any supporting data other than images and diagrams
- These data modules will be stored and managed in CSDB, Common Source Database.
- Using this CSDB we can publish output in a page-oriented or Interactive Electronic Technical Manual.
- These Individual data modules are re-usable components and can be used repeatedly in an output.

Benefits of S1000D

- Re-usability of data hence reduces production cost
- Standardization of data and naming conventions
- Open source and non-proprietary
- Good for legacy data conversion
- Proper documentation and version control management
- Zero printing cost and zero occupancies of space as no Hard copies are to be maintained. Achieved by reusing instead of recreating information each time it is required
- Easily to maintain and distribute: Facilitates transfer of information and electronic output between systems very easily and conveniently
- Multiple Vendor support
- Fastest reference to operator or maintainer than traditional paper-based documents
- Many different output forms can be generated from a single data source i.e. from CSDB we can generate IETM and also PDF format which can be used for printing if need be

- Customized Output creation: Allows sub-sets of information to be generated to meet specific user needs and user levels.

Major similarities and differences between JSG 0852 & S1000D

JSG – 0852 : 20001	S1000D
1. Needs Raw content to covert to SQL Database	1. Needs Raw content to covert to XML Database
2. HTML/SGML as source file	2. XML as source file
3. IETM has inbuilt Authoring tool, Content management tool, User Management and reporting	3. OEM or the place IETM is being deployed must have CSDB webserver to host the Data Modules/ s1000d XML files to have user management and content management.
4. Works in Standalone and Client server mode	4. Vendor give s1000d files to OEM. If OEM has CSDB studio server then IETP can be hosted in that server. Otherwise, it plays in standalone machine as a Viewer.
5. IETM has Viewer and Administrator and Author Modules	5. OEM needs S1000d author tool, commercially available off the shelf software to edit.
6. Content can be edited by OEM without any tool	6. OEM must have s1000d CSDB server to deploy s1000d files. If no CSDB Server is available then S1000d can still be viewed in Viewer without any Administration tools
7. In short, OEM need not have any software to deploy IETM	

S1000D USERS

- Military
  - Air
  - Land
  - Maritime
  - International
- Civil/commercial
  - Aviation
  - Shipping
  - Space
  - Urban
  - General technology

Others:

- Manufacturer
- Integrator
- Supplier
- Suppliers of documentation
- Technical service providers
- Software vendors

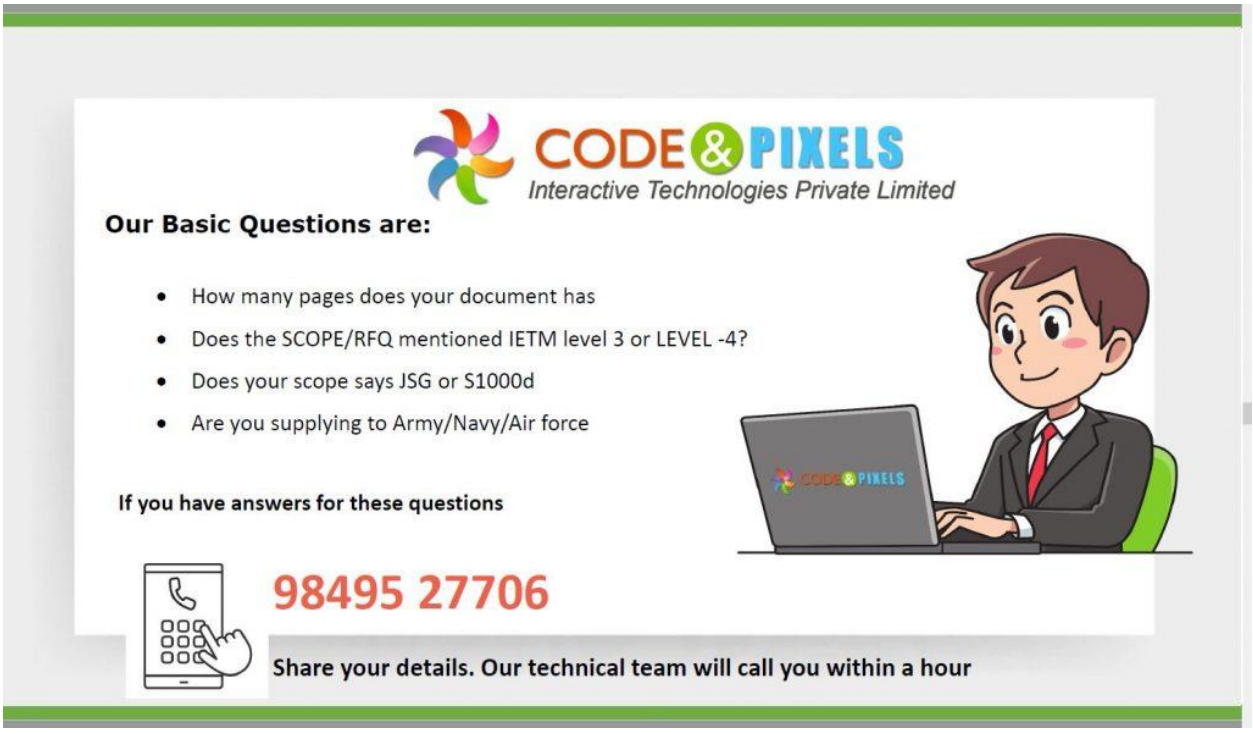
Now, the big question is do we really need s1000d?

- ✓ Well, to be honest, answer is Yes and NO.
- ✓ S 1000d mostly suits to airline industry where every part has a unique number may it be AIRBUS, BOEING BUSINESS JETS, BOMBARDIER AEROSPACE, CESSNA AIRCRAFT. Parts and part numbers are the same.
- ✓ In s1000d documentation, every part is developed as a standalone module/document (data Module). While delivering a document, they compile all data modules and deliver.
- ✓ And all these companies have their own s1000d suit which costs in crores.
- ✓ They maintain a centralized repository. They maintain their own software which takes care of publishing, document management.
- ✓ In our context, it won't suit our needs and purpose. To maintain s1000d, even Clients must have s 1000d CSDB Studio or Server, and all the s1000d publications supplied by various OEMs/ Vendors will sit in that CSDB Server
- ✓ For that client has to share BREX, business rules to vendors, and guidelines to all vendors so that all the documents will sit properly in the client's S1000d CSDB Server
- ✓ This is needed when the system has around 2 lakhs of documents to share.
- ✓ And its commercially very costly solution. If say, IETM costs

Common information sets provide following data: –

- Crew/Operator information
- Description and operation
- Maintenance information
- Wiring data
- Illustrated Part Data (IPD)
- Maintenance planning information
- Mass and balance information
- Recovery information
- Equipment information
- Weapon loading information –

- Cargo loading information
- Stores loading information
- Role change information
- Battle damage assessment and repair information
- Illustrated tool and support equipment data
- Service bulletins
- Material data
- Common information and data
- Training
- List of applicable publications
- Maintenance checklists and inspections


CODE & PIXELS
Interactive Technologies Private Limited
Our Basic Questions are:
How many pages does your document has
Does the SCOPE/RFQ mentioned IETM level 3 or LEVEL -4?
Does your scope says JSG or S1000d
Are you supplying to Army/Navy/Air force
If you have answers for these questions
98495 27706
Share your details. Our technical team will call you within a hour

S1000D Development with Code and Pixels

- Having 8 years of experience in handling technical documentation, especially for defense, code and pixels has gained good knowledge on S1000D IETM development
- Code and Pixels is associated with US based company in designing and development of S1000d documentation.
- Code and pixels have well trained 50 + resources to handle S1000d projects.

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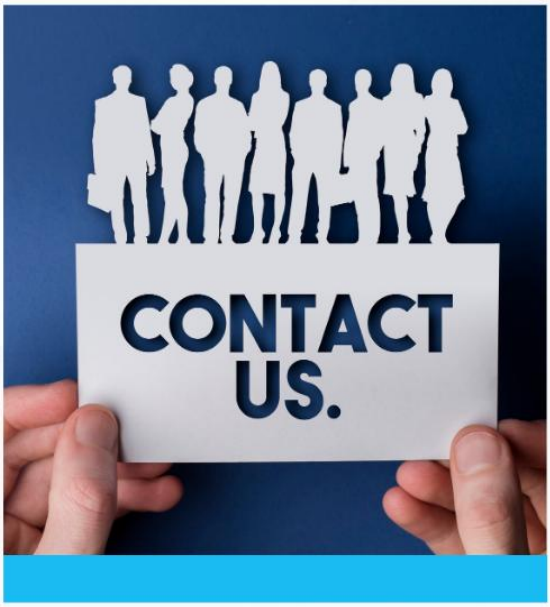

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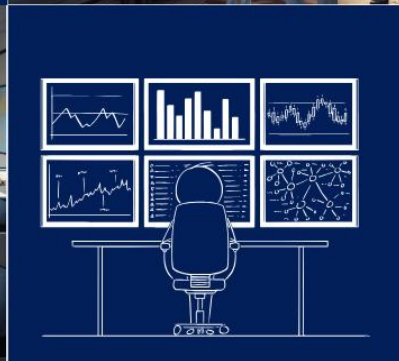
ANNIVERSARY CELEBRATIONS 2012-2025

Thank You

We are Just a Call away